

Reissue Application of
U.S. Patent No. 5,088,108

#24

Patent Attorney's Docket No. 027500-690

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Reissue Application of

Received

)

U.S. Patent No. 5,088,108 to

JAN 29 1998

)

Group Art Unit: 2603 *2732*

Jan-Erik UDDENFELDT

Group 2700

)

Examiner: B. Safourek

Serial No.: 08/136,760

)

Filed: October 15, 1993

)

For: CELLULAR DIGITAL MOBILE RADIO

)

SYSTEM AND METHOD OF TRANSMITTING

)

INFORMATION IN A DIGITAL CELLULAR

)

MOBILE RADIO SYSTEM

)

Assistant Commissioner for Patents

BOX 7

Washington, D.C. 20231

PROTEST UNDER 37 C.F.R. SECTION 1.291(a)
(REISSUE APPLICATION)

Sir:

Pursuant to 37 C.F.R. Section 1.291, OKI America, Inc. ("OKI") protests the application for reissue of U.S. Patent No. 5,088,108 to Jan E. Uddenfeldt for "CELLULAR DIGITAL MOBILE RADIO SYSTEM AND METHOD OF TRANSMITTING INFORMATION IN A DIGITAL CELLULAR MOBILE RADIO SYSTEM" (hereinafter "'108 patent") on the following grounds: (1) The '108 reissue application violates 35 U.S.C. Section 251, which authorizes reissue *only* "for the invention disclosed in the original patent," and (2) the reissuance sought does not contain the enabling disclosure required by 35 U.S.C. Section 112.

*Page 2 of protest missing
provided by Patent Owner 2/23/98
SARE
TC 2700*

BURNS, DOANE, SWECKER & MATHIS, L.L.P.
ATTORNEYS AT LAWPOST OFFICE BOX 1404
ALEXANDRIA, VIRGINIA 22313-1404

TELEPHONE: (703) 836-6620

TO: Joe Dixon
USPTO

FROM: Steve duBois

DATE: February 23, 1998

RE:

THE FIRM'S FACSIMILE TRANSMITTERS:

ALEXANDRIA:

Group 3 (703) 836-2021

Group 4 (703) 836-0028

PAGES TO FOLLOW: 1

Your Reference:

Our Reference: 027500-690

MESSAGE:

Further to our telephone conversation of today, enclosed please find the page of the Protest that you are missing.

Thank you for your assistance.



Client No. 027500-690

Fax Tel. No. 305-3991

Any questions regarding compatibility should be directed to our Office Services Department at 703/836-6620 in Alexandria, at 650/854-7400 in Menlo Park, and at 919/941-9240 in Durham.

Menlo Park Fax No.: (650) 854-8275

Durham Fax No.: (919) 941-1515

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(BDSM 9/97)

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OKI and Ericsson have been engaged in litigation regarding the patent for over one year, and Ericsson has not yet provided a detailed claim construction. Although Ericsson's claim construction in litigation would be highly material to these reissue proceedings, and OKI would have included such information in this protest, Ericsson has not provided it. However, OKI must now submit this protest to provide the Examiner with defects in the reissue claims and application, rather than continue to await Ericsson's claim construction.¹

I. THE ORIGINAL PATENT DISCLOSES NEITHER "HANDOVER" NOR ANY MEANS OF COMMUNICATION BETWEEN ONE MOBILE RADIO AND BASE STATIONS ASSIGNED TO DIFFERENT, ADJACENT CELLS.

The original '108 patent discloses only a purported invention for communicating between a mobile stations and two base station transmitters, where each base station transmitter is assigned to the same cell. It does not disclose an invention for communication between a mobile radio and base station transmitters that are assigned to different, adjacent cells. This distinction is highly significant. In fact, rather than explain how a mobile station could simultaneously communicate with base station transmitters assigned to different cells, the original patent expressly distinguishes "known cellular digital mobile radio systems with only one base station transmitter per cell." Col. 9:15-16.

The invention purports to address the following problem: "In mobile radio systems there are problems due to reflections and radio shadows from natural obstacles such as rocks and hills, as well as structures such as buildings." Col. 2:12-15. The '108 patent recognized that one

¹ Furthermore, the applicant has failed to disclose pending litigation in the Eastern District of Texas between Ericsson and Qualcomm Incorporated involving material defenses pursuant to 37 C.F.R.

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could ensure greater coverage simply by reducing cell size: "Up to now attempts have been made to solve these problems by having adaptive equalizers in the mobile stations and small cells with specially selected positioning of the base station transmitters." Col. 2:21-25. However, the '108 patent also recognized that reducing cell size would require more "handovers" from one base station transmitter to another as the mobile moved from cell to cell: "Another complication resulting from the reduction of cell size to below what is necessary for reasons of capacity is that the number of handovers increases." Col. 2:31-34.

Rather than explain how a mobile station could simultaneously communicate with base station transmitters assigned to different cells, as is the case during handover, the '108 patent purported to disclose an invention that would avoid handovers by assigning two base station transmitters to a single cell:

Somewhat simplified, it may be said that according to the present invention at least two base station transmitters are utilized for each of a plurality of cells, these transmitters being at a distance from each other at least partially simultaneously transmitting radio signals within the same frequency range digitally modulated with the same message information to the mobile stations in the cell.

Col. 2:45-52. Thus, the '108 patent explained: "The coverage degree can be made greater without the cell size needing to be reduced, which give[s] greater freedom in the selection of cell plan[ning] and a lesser number of handovers." Col. 3:63-67 (emphasis added).

Absolutely nothing in the specification disclosed how a mobile station could communicate simultaneously with base stations transmitters of adjacent cells. In fact, the entire written description, including all of the figures, discloses an invention for communication

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between one mobile station and two base stations "associated" with or "assigned" to only the same, single cell. The disclosure does not explain how one skilled in the art could use the alleged invention for communication between a mobile station and base station transmitters assigned to different, adjacent cells. For example, base station transmitters assigned to the same, single cell in a digital mobile radio system would transmit the same digital signal over the air -- comprised of the same series of binary 1s and 0s. Such might not be the case when two base station transmitters are assigned to different, adjacent cells. In addition, while the patent disclosure discusses how to measure the "propagation" time when both base station transmitters are assigned to the same, single cell, it does not show how to measure the "propagation" time when the base station transmitters are located in or assigned to different, adjacent cells.

Consequently, claims 37-59 of the reissue application, which purport to claim "handover" features, cannot be allowed because to do so would violate 35 U.S.C. Section 251, given that the specification only discloses an invention for communicating with two base stations assigned to the same cell, and does not disclose an invention for communicating with base station transmitters assigned to different cells.² Similarly, because the original patent does not describe any

² The applicant admits that the original patent did not include a claim covering handover. See Supplemental Declaration in Support of Reissue Application &9 ("[I]t is believed that the assignee and inventors claimed less than they had the right to claim.") Nonetheless, the applicant may argue that claims 37-56 are merely "dependent" claims, and thus are purportedly narrower in scope than the independent claims on which they are based. However, these "narrower" claims are Trojan horses designed to change the meaning of the terms in the independent claims upon which they are based. The independent claims do not describe base stations assigned to different, adjacent cells; they describe base stations assigned to a single cell. See, e.g., Claim 1 ("a cell to which both of said transmitters are assigned").

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invention concerning base station transmitters assigned to different, adjacent cells -- much less enable it -- proposed new independent claims 13, 14, 18, 29, 30 and 34, along with proposed new dependent claims 19, 20, 23, 24, 25, 31, 32, 33 cannot be allowed, unless the Examiner is satisfied that these proposed claims do not claim an invention concerning base station transmitters assigned to different cells. Otherwise, these claims would violate 35 U.S.C. Section 251, and in any event, would not be enabled in violation of 35 U.S.C. Section 112.³

II. THE ORIGINAL PATENT DISCLOSES AT MOST ONLY ADAPTIVE EQUALIZERS AND THEIR EQUIVALENTS, AND DOES NOT ENABLE ANY OTHER TYPE OF "RECEIVER."

The '108 patent specification discloses a system using a "time division multiple access" or "TDMA" system. See, e.g., Col 4:27-30; Col. 8:7-11; Col. 8:44-49. See also Response to First Office Action (2/20/90) ("With respect to the Examiner's concern of how the instant invention operates to communicate with several mobile stations at the same time, applicant respectfully submits that TDMA is utilized. The base station transmits digitally modulated radio signals to different mobile stations in time multiplex.") (emphasis added).

TDMA systems include mobile radios having adaptive equalizers which the radios use to receive multiple signals. The '108 specification purports to disclose a method and system designed to take advantage of the unique, specific characteristics of mobile radios that have adaptive equalizers. Nowhere does the '108 patent disclose an invention applicable to other

³ These claims do not expressly include the requirement that both base station transmitters be "assigned to" or "associated with" a single cell.

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types of mobile radios, which do not have adaptive equalizers or their equivalent.⁴ See Col. 2:56-59 ("The mobile stations have adaptive equalizers for reconstructing the digital modulation in the transmitted signals from the signals received during a reception time interval.") (emphasis added); Col. 6:24; Col. 7:36; Col. 9:11, 17, 21, 26, 28, 37. Nothing in the specification suggests, much less enables, any method or system with mobile radios having any "receiver" other than adaptive equalizers and their equivalents.

Unlike the original patent claims, many reissue claims, including claims 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 55, 56, 58, 59, 60, and 62, are not expressly limited to adaptive equalizers and their equivalents, but instead use the term "receivers." In litigation, the applicant is now contending that these claims, if issued, will read on the "receivers" with multiple independent demodulating elements used in direct sequence spread spectrum code division multiple access ("CDMA") systems. However, the patent does not even mention such receivers, which are not equivalent to adaptive equalizers. An equalizer is meant to improve performance of a receiver in a multipath environment, where each path is a time-shifted or delayed version of the same signal. An equalizer cannot process multiple different digital signals, for example, where the signals are

⁴ During the prosecution of the original '108 patent, the applicant explained what it considered the invention to be:

Applicant respectfully submits that the unique features of the instant invention are the particular manner in which the diversity transmission from the base stations and the equalizer at the mobile stations are adapted to each other. This adaptation relates specifically to the modulation time of the radio signals transmitted, the maximum radio signal propagation time between the base station transmitters in a particular area, and the reception time interval of the equalizer associated with the mobile station.

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differentiated by frequency or by code channels. In contrast, receivers with multiple independent demodulating elements used in CDMA systems *can* process different digital signals differentiated by code channel.

To the extent any claims purport to claim anything other than adaptive equalizers and their equivalents, they would violate 35 U.S.C. Section 251. In addition, such claims would not be enabled in violation of 35 U.S.C. Section 112.

III. THE APPLICANT FAILED TO DISCLOSE DEFENSES IN LITIGATION BETWEEN OKI AND ERICSSON, AND HAS FAILED TO DISCLOSE PENDING LITIGATION IN THE EASTERN DISTRICT OF TEXAS, IN WHICH QUALCOMM HAS RAISED NUMEROUS DEFENSES TO VALIDITY.

The applicant submitted a "Notice Regarding Litigation" on September 4, 1997, identifying litigation pending in federal court in Dallas, Texas, and San Jose, California. The applicant stated that it was "not aware of any defenses having been raised in this litigation against the validity of the patent, any charges of fraud or inequitable conduct, or any other details and documents associated with the litigation that could be considered 'material to patentability' pursuant to 37 C.F.R. Section 1.56." That statement is not true, and, in fact, the applicant is aware that OKI has alleged that the '108 patent is invalid under 35 U.S.C. Sections 102, 103 and 112. A true and correct copy of OKI's complaint is attached hereto. Furthermore, the applicant has failed to disclose a pending lawsuit in the Eastern District of Texas, which Ericsson itself filed. As applicant knows, Qualcomm has asserted defenses of patent invalidity and inequitable

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conduct in the case. A true and correct copy of Qualcomm's Second Amended Answer and Counterclaims is attached hereto.

Date: January 29, 1998

Respectfully submitted,



SHAIENDRA C. BHUMRALKAR
REG. NO. 38381
WEIL, GOTSHAL & MANGES LLP
(650) 926-6254
2882 Sand Hill Road
Suite 280
Menlo Park, CA 94025-7022

For Protestor:
OKI America, Inc.

Received**JAN 29 1998****Group 2700****REISSUE LITIGATION**
Reissue Application of
U.S. Patent No. 5,088,108**COPIES OF LISTED ITEMS**

A true and correct copy of OKI's Complaint for Declaratory Relief, filed in OKI America, Inc. v. Telefonaktiebolaget LM Ericsson, Sweden and Ericsson, Inc., C.A. No. C-96-20747 (N.D. Cal.) is attached hereto as Exhibit A.

A true and correct copy of Qualcomm's Second Amended Answer and Amended Counterclaims, filed in Ericsson Inc. and Telefonaktiebolaget LM Ericsson v. QUALCOMM Incorporated, C.A. No. 2-96CV183 (E.D. Tex.) is attached hereto as Exhibit B.

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CERTIFICATE OF SERVICE

I hereby certify that a complete, true and correct copy of the foregoing PROTEST UNDER
37 C.F.R. Section 1.291(a) has been served by first class mail, on this ___ day of January 1998, on
applicant's counsel as follows:

Steven M. duBois
Burns, Doane, Swecker & Mathis, LLP
P.O. Box 1404
Alexandria, VA 22313-1404

By:

